



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Amr M. MOHSEN

Serial No.: 10/052,671

Publ. No. 20020100010

Filed: January 17, 2002

For: Field Programmable Printed Circuit
Board

Atty. Docket No.: 003921.00248

Group Art Unit: 2128

Examiner: Hugh M. Jones

Confirmation No. 6141

INFORMATION DISCLOSURE STATEMENT

The Honorable Commissioner for Patents
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Sir:

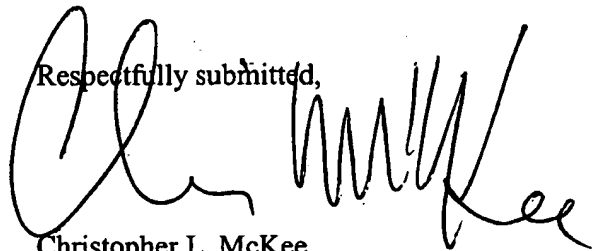
Pursuant to 37 C.F.R. §1.56, the attention of the U.S. Patent and Trademark Office is hereby directed to the references listed in the attached Forms PTO/SB/08. The references listed in standard type-face are references cited and made of record in parent application 08/632,298, filed April 12, 1996, from which priority is claimed. Accordingly, pursuant to 37 C.F.R. §1.98(d), a copy of these references is omitted. The references appearing in bolded type-face were not made of record in the parent application. Pursuant to the Office's October 12, 2004 OG Notice, it is understood that 37 C.F.R. §1.98 no longer requires submission of a copy of each cited U.S. patent and published patent application, unless such copies are specifically required by the Office. Accordingly, a copy of the bolded U.S. patents and published applications is also omitted. A copy of the other listed references appearing in bolded type-face is enclosed.

Applicant submits this information so that the Patent and Trademark Office may, in the first instance, determine any materiality thereof to the claimed invention. It is respectfully requested that the information be formally considered during the prosecution of this application,

and that the listed references appear among the "References Cited" on any patent to issue herefrom.

The present Information Disclosure Statement is being filed after the mailing date of the first Office Action on the merits, but before a Final Office Action or Notice of Allowance. Pursuant to 37 CFR §1.97(c)(2), this Statement is accompanied by the \$180.00 fee specified in 37 C.F.R. §1.17(p). If there is any discrepancy in the fee, the Commissioner is authorized to charge our Deposit Account No. 19-0733.

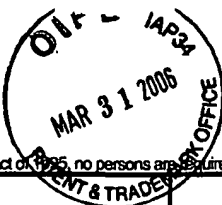
Respectfully submitted,



Christopher L. McKee
Registration No. 32,384

BANNER & WITCOFF, LTD,
1001 G Street, N.W., 11th Floor
Washington, D.C. 20001-4597
(202) 824-3000

Date: 3/31/06



PTO/SB/08a (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 7

Complete If Known

Application Number	10/052,671
Filing Date	January 17, 2002
First Named Inventor	Amr M. MOHSEN
Art Unit	2128
Examiner Name	Hugh M. Jones
Attorney Docket Number	003921.00248

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
HJ		3,849,872	11/1974	Hubacher	
		3,867,759	02/25/75	Siefker	
		4,124,899	11/07/1978	Birkner et al.	
		4,146,902	03/1979	Tanimoto et al.	
		4,183,460	01/1980	Yuen et al.	
		4,241,307	12/1980	Hong	
		4,245,273	01/1981	Feinberg et al.	
		4,327,355	04/1982	Genter et al.	
		4,354,228	10/1982	Moore et al.	
		4,357,703	11/1982	Van Brunt	
		4,433,331	02/21/1984	Kollaritsch	
		4,441,075	04/1984	McMahon	
		4,455,495	06/1984	Masuhara et al.	
		4,458,197	07/03/1984	Robinson	
		4,458,297	07/1984	Stopper et al.	
		4,578,773	03/1986	Desai et al.	
		4,467,400	08/1984	Stopper	
		4,479,088	10/1984	Stopper	
HJ		4,486,705	12/1984	Stopper	
		4,509,008	04/1985	Das Gupta et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
HJ		EP 177,261 A2	04/09/1986	Xilinx, Inc.		
		EP 204,034 A2	12/1986			
		EP 310,357 A3	04/1989			
		EP 329,018 A3	08/1989			
		EP 0 335 281 A2	10/04/1989			
HJ		EP 0 481 703 A2	04/22/1992			

Examiner
Signature

H. Jones

Date
Considered

9/22/05

*EXAMINER: Initial if reference considered whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Substitute for form 1449A/PTO <h2 style="text-align: center;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT</h2> <p style="text-align: center;">(Use as many sheets as necessary)</p>		<h3 style="text-align: center;">Complete if Known</h3> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>10/052,671</td> </tr> <tr> <td>Filing Date</td> <td>January 17, 2002</td> </tr> <tr> <td>First Named Inventor</td> <td>Amr M. MOHSEN</td> </tr> <tr> <td>Art Unit</td> <td>2128</td> </tr> <tr> <td>Examiner Name</td> <td>Hugh M. Jones</td> </tr> <tr> <td>Attorney Docket Number</td> <td>003921.00248</td> </tr> </table>		Application Number	10/052,671	Filing Date	January 17, 2002	First Named Inventor	Amr M. MOHSEN	Art Unit	2128	Examiner Name	Hugh M. Jones	Attorney Docket Number	003921.00248
Application Number	10/052,671														
Filing Date	January 17, 2002														
First Named Inventor	Amr M. MOHSEN														
Art Unit	2128														
Examiner Name	Hugh M. Jones														
Attorney Docket Number	003921.00248														
Sheet	2	of	7												

U.S. PATENT DOCUMENTS					
Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
[Signature]		4,631,686	12/23/1986	Ikawa et al.	
		4,638,246	01/1987	Blank et al.	
		4,649,413	03/1987	Kelly	
		4,697,241	09/1987	Lavi	
		4,703,436	10/1987	Varshney	
		4,706,216	11/1987	Carter	
		4,717,988	01/1988	Landis	
		4,727,268	02/1988	Hori	
		4,729,124	03/1988	Hansel et al.	
		4,744,084	05/1988	Beck et al.	
		4,749,947	06/1988	Gheewala	
		4,758,745	07/1988	Eigamal et al.	
		4,779,340	10/1988	Kihm et al.	
		4,786,904	11/1988	Graham, III et al.	
		4,807,183	02/1989	Kung et al.	
[Signature]		4,813,017	03/1989	Wong	
		4,817,093	03/1989	Jacobs et al.	
		4,821,176	04/1989	Ward et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials *	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ²
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
[Signature]		EP 0 518 701 A2	12/16/1992			
		JP UM 53-141353	09/12/78			Partial
		JP 59-161839	09/1984			
		WO 85/03804	08/1985			
[Signature]		WO 90/04233	04/1990			
		JP 58-117,469	07/13/1983			Partial

Examiner Signature	[Signature]	Date Considered	9/27/05
--------------------	-------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete If Known	
				Application Number	10/052,671
				Filing Date	January 17, 2002
				First Named Inventor	Amr M. MOHSEN
				Art Unit	2128
				Examiner Name	Hugh M. Jones
				Attorney Docket Number	003921.00248
Sheet	3	of	7		

U.S. PATENT DOCUMENTS					
Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
Mg		4,826,776	05/1989	Brandt et al.	
		4,833,402	05/1989	Boegh-Petersen	
		4,840,924	06/1 989	Kinbara	
		4,847,732	07/1989	Stopper et al.	
		4,855,253	08/1989	Weber	
		4,860,165	08/1989	Cassinelli	
		4,866,432	09/12/1989	Goetting	
		4,870,302	09/1989	Freeman	
		4,873,459	10/1989	El Gamal et al.	
		4,877,599	10/1989	Lees	
		4,884,122	11/1989	Eichelberger et al.	
		4,894,605	01/1990	Ringleb et al.	
		4,906,987	03/1990	Venaleck et al.	
		4,949,084	08/1990	Schwartz et al.	
		4,956,602	09/1990	Parrish	
		4,961,053	10/1990	Krug	
Mg		4,963,768	10/16/1990	Agrawal et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials *	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
Mg		JP 59-182877	12/05/1984			Partial
		JP 62-91469	06/11/1987			Partial
		JP 62-159060	07/15/1987			Partial
		JP 64-50372	02/27/1989			Partial
		GB 2 137 811 A	10/10/1984	International Rectifier Corp.		
		JP 63-49831	02/03/1988	Matsushita Electric Industrial Co., Ltd.		
		GB 2 180 382 A	03/25/1987	Pilkington Micro-Electronics Limited		
Mg		WO 87-02827	05/07/1987	4C Electronics, Inc.		
Examiner Signature				Date Considered	9/27/06	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 18 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO <h2 style="text-align: center;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT</h2> <p style="text-align: center;">(Use as many sheets as necessary)</p>		<h3 style="text-align: center;">Complete If Known</h3> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>10/052,671</td> </tr> <tr> <td>Filing Date</td> <td>January 17, 2002</td> </tr> <tr> <td>First Named Inventor</td> <td>Amr M. MOHSEN</td> </tr> <tr> <td>Art Unit</td> <td>2128</td> </tr> <tr> <td>Examiner Name</td> <td>Hugh M. Jones</td> </tr> <tr> <td>Attorney Docket Number</td> <td>003921.00248</td> </tr> </table>		Application Number	10/052,671	Filing Date	January 17, 2002	First Named Inventor	Amr M. MOHSEN	Art Unit	2128	Examiner Name	Hugh M. Jones	Attorney Docket Number	003921.00248
Application Number	10/052,671														
Filing Date	January 17, 2002														
First Named Inventor	Amr M. MOHSEN														
Art Unit	2128														
Examiner Name	Hugh M. Jones														
Attorney Docket Number	003921.00248														
Sheet	4	of	7												

U.S. PATENT DOCUMENTS					
Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		4,979,138	12/18/1990	Arrathoon	
		5,015,885	05/14/1991	El Gamal et al.	
		5,036,473	07/1991	Butts et al.	
		5,107,146	04/21/1992	El-Ayat	
		5,109,353	04/1992	Sample et al.	
		5,144,548	9/01/1992	Salandro	
		5,231,588	07/1993	Agrawal et al.	
		5,253,181	10/1993	Marui et al.	
		5,255,203	10/1993	Agrawal et al.	
		5,260,664	11/1993	Graham	
		5,295,082	03/1994	Chang et al.	
		5,371,390	12/1994	Mohsen	
		5,400,262	03/1995	Mohsen	
		5,414,638	05/1995	Verheyen et al.	
		5,448,496	09/05/1995	Butts et al.	
		5,452,231	09/19/1995	Butts et al.	
		5,457,410	10/1995	Ting	
		5,504,354	04/1996	Mohsen	
		5,596,743	01/1997	Bhat et al.	
			5,612,891	03/18/1997	Butts et al.
		5,657,241	08/12/1997	Butts et al.	
		5,661,662	08/26/1997	Butts et al.	
		5,973,340	10/1999	Mohsen	
		5,661,409	08/1997	Mohsen	
		5,654,564	08/1997	Mohsen	
		5,377,124	12/27/1994	Mohsen	
		5,544,069	08/06/1996	Mohsen	

Examiner Signature		Date Considered	9/27/06
-----------------------	--	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 5 of 7

Complete if Known

Application Number	10/052,671
Filing Date	January 17, 2002
First Named Inventor	Amr M. MOHSEN
Art Unit	2128
Examiner Name	Hugh M. Jones
Attorney Docket Number	003921.00248

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
MJ		Barber et al., "A 64 x 17 Non-Blocking Cross Point Switch," 1988 IEEE Int'l. Solid-State Circuits Conf., 18 Feb. 1988, pp. 116, 117 and 142.	
		Bogdan, "An Electrically Programmable Silicon Circuit Board," <u>BUSCON/87 West Proceedings and SYSCON West</u> , 1987, pp. 472 - 476.	
		Colbry et al. "High Performance Crosspoint Switch Implemented in CMOS on AVP," <u>Procs. IEEE Int'l. Solid-State Circ. Conf.</u> , 5 - 8 Oct. 1987, pp. 113 - 116.	
		Donnell, "Crosspoint Switch: A PLD Approach," <u>Digital Design</u> , July 1986, pp. 40 - 42 and 44.	
		Fiduccia et al, "A Linear-Time Heuristic for Improving Network Partitions," 19th ACM/IEEE Design Automation Conf., June 14 - 16, 1982, pp. 175 - 181, reprinted in <u>Compo Paps. Design Automation Conf.</u> , 1988, pp. 241 - 247.	
		Guo et al. "A 1024 Pin Universal Interconnect Array With Routing Architecture," <u>Proceedings of the Custom Integrated Circuits Conference</u> , 3 - 6 May 1992, pp. 4.5.1 - 4.5.4.	
		Hantusch, "The PIM: A Programunable Interconnection Module," <u>IEE Colloquim Dig., Colloquim on IC Design-Gate Arrays</u> , 21 Nov. 1984, pp. 8.1- 8.4.	
		Hyden et al, "Silicon Circuit Boards: Off-the Shelf Convenience," <u>Elec. Pack. & Prod.</u> , Apr. 1988, pp. 70 - 74.	
		Lauther, "A Min-Cut Placement Algorithm for General Cell Assemblies Based on a Graph Representation," 16th Design Automation Conf., 25 - 27 June 1979, pp. 1- 10, reprinted in <u>Compo Paps. Design Automation Conf.</u> , 1988, pp. 182 - 191.	
		Lee et al. "A New Global Router for Row-Based Layout," IEEE Int'l. Cont: on CAD, 7 - 10 Nov. 1988, pp. 180 - 183.	
		Lin et al. "A Detailed Router Based on Simulated Evolution," IEEE Int'l. Conf. on CAD, 7 - 10 Nov. 1988, pp. 180 - 183.	
		Marek-Sadowska, "Two Dimensional Router for Double Layer Layout," 22nd ACM/IEEE Design Automation Conf., 23 - 26 June 1985, pp. 117 - 123.	
MJ		Quinnell, "Digital Switches Provide Bus Connections With No Additional Gate Delays," <u>EDN</u> , 18 July 1991, page 64.	

Examiner Signature	<i>H. Jones</i>	Date Considered	9/27/06
-----------------------	-----------------	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO		Complete If Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Application Number	10/052,671
		Filing Date	January 17, 2002
		First Named Inventor	Amr M. MOHSEN
		Art Unit	2128
		Examiner Name	Hugh M. Jones
		Attorney Docket Number	003921.00248
Sheet	6	of	7

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
[Signature]		Swager, "Crosspoint-switch ICs Enter Digital Domain," <u>EDN</u> , 16 Feb. 1989, pp. 76 - 86.	
		Tzeng et al, "Codar: A Congestion-Directed General Area Router," IEEE Int'l. Conf. on CAD, 7 - 10 Nov. 1988, pp. 30 - 33	
		Wooley et al, "Active Substrate System Integration," <u>IEEE</u> , July 1987, pp. 468 - 471.	
		"Fast Digital Switches Route Bus Signals," <u>EEPN</u> , undated, 1 p.	
		"Gallium Arsenide 64 x 64 Crosspoint Switch," preliminary data sheet, Vitesse Semiconouerot Corporation, Feb. 1991, pp. 1 - 10.	
		"Logically Controlled Chip Interconnection Technique," <u>IBM Tech. Discl. Bull.</u> , Vol. 32, No. 3B, Aug. 1989, pp. 294 - 299.	
		"AD75019 16 x 16 Crosspoint Switch Array," data sheet, Analog Devices, 1991, 4 pp.	
		HP-12C Owner's Handbook and Problem Solving Guide, Hewlett-Packard Company, Palo Alto, CA, 1981, pp. 220-221	
		IBM Tech. Discl. Bul., "Logically Controlled Chip Interconnection Technique," Aug. 1989, Vol. 32, No. 3B, pp. 294-299	
		Brown, S. et al., "A Detailed Router for Field Programmable Gate Arrays" pp. 382-85	
		Greene, J. et al., "Segmented Channel Routing," 27th ACM/IEEE Design Automation Conference, June 24-28, 1990, pp. 567-72	
		Lin et al., "SILK: A Simulated Evolution Router," IEEE Transactions on Computer Design, Vol. 8, No. 10, October, 1989, pp. 1108-14	
		Wynn, Pardner, "Designing With Logic Cell Arrays," p. 1-9.	
		Wynn, Pardner, "In-Circuit Emulation for ASIC-Based Designs," VLSI Systems Design, October 1986, pp. 38-45	
		Agrawal, P. et al., "Architecture and Design of the MARS Hardware Accelerator," 24th ACM/IEEE Design Automation Conference, 1987, pp. 101-07	
[Signature]		Blodgett, Albert, "A Multilayer Ceramic Multichip Module," IEEE Transactions on Components, Hybrids and Manufacturing Technology, vol. CHMT-3, No.4, December 1980, pp. 634-37	
		Seraphim, D.P. and Feinberg, I., "Electronic Packaging Evolution in IBM," IBM J. Res. Develop., Vol. 25, No. 5, September 1981, pp. 617-29	

Examiner Signature	[Signature]	Date Considered	9/27/06
--------------------	-------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application Number	10/052,671
		Filing Date	January 17, 2002
		First Named Inventor	Amr M. MOHSEN
		Art Unit	2128
		Examiner Name	Hugh M. Jones
(Use as many sheets as necessary)		Attorney Docket Number	003921.00248
Sheet	7	of	7

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Palesko, C. and Akers L., "Logic Partitioning for Minimizing Gate Arrays," IEEE Transactions on Computer Aided Design of Integrated Circuits and Systems, Vol. CAD-2, No. 2, April 1983, pp. 117-21	
		Stroud, C. and Munoz, R., "CONES: A System for Automated Synthesis of VLSI and Programmable Logic from Behavioral Models," IEEE International Conference on Computer Aided Design, November 11-13, 1986, pp. 428-31	
		The Programmable Gate Array Design Handbook, Xilinx, Inc., 1986	
		Microelectronics Packaging Handbook, 1989	
		Circuits, Interconnections and Packaging for VLSI, 1990	
		Handbook of Microelectronics Packaging and Interconnection Technologies, Chapter 1, 1985	
		Handbook of Microelectronics Packaging and Interconnection Technologies, Chapter 7, 1985	
		Kit Offers Instant Insights, Electronics, January 23, 1975, p. 70	
		Horowitz and Hill, The Art of Electronics, Chapter 12 [copyright 1980 and 1989]	
		"Synthesis of Logic Functions on an Array of Integrated Circuits," Contract Report AFCRL-66-298, UNIVAC Division of Sperry Rand Corp., Blue Bell, PA, Oct. 31, 1965.	

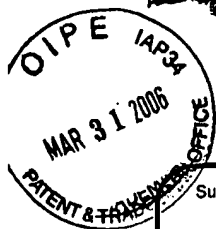
Examiner Signature		Date Considered	9/27/05
-----------------------	--	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



Listing of Related Litigation Papers Submitted Responsive to Request for Information

PTO/SB/08b(08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 2

Complete if Known

Application Number	10/052,671
Filing Date	January 17, 2002
First Named Inventor	Amr M. MOHSEN
Art Unit	2128
Examiner Name	Hugh M. Jones
Attorney Docket Number	003921.00248

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
MJ		U.S. District Ct. (N.D. Cal.) Civil Docket for Case # 3:04-cv-01522-EDL (<i>Aptix Corp. v. Willmore et al.</i>)	
		Complaint filed in <i>Aptix Corp. v. Willmore et al.</i>	
		U.S. District Ct. (N.D. Cal.) Civil Docket for Case # 3:98-cv-00762-WHA (<i>Aptix Corp. et al. v. Quickturn Design Systems</i>)	
		Findings of Fact and Conclusions of Law After Evidentiary Hearing on Motion for Terminating Sanctions in <i>Aptix Corp. v. Quickturn Design Systems, Inc.</i> , Case No. 98-00762, 2000 WL 852813 (N.D. Cal. 2000)	
		<i>Aptix Corp. v. Quickturn Design Systems, Inc.</i> , 13 Fed.Appx. 972 (Fed. Cir. 2001) (Rule 36 affirmance)	
		<i>Aptix Corp. v. Quickturn Design Systems, Inc.</i> , 269 F.3d 1369 (Fed. Cir. 2001)	
		<i>Aptix Corp. v. Quickturn Design Systems, Inc.</i> , 148 Fed.Appx. 924 (Fed. Cir. 2005)	
		Joint Claim Construction Statement, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 45)	
		<i>Aptix's and Meta's</i> Memorandum on Claim Construction, in <i>Aptix Corp. v. Quickturn Design Systems, Inc.</i> (Docket # 266)	
		Declaration of Dr. Harry L. Tredennick III in Support of Plaintiffs' Memorandum on Claim Construction in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 268)	
		Response by Aptix and Meta to Quickturn's Memorandum on Claim Construction, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 297)	
MJ		Tentative Ruling After Claim Construction Hearing, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 314)	

Examiner
Signature

H. Jones

Date
Considered

9/27/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Listing of Related Litigation Papers Submitted Responsive to Request for Information

PTO/SB/08b(08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 2

Complete if Known

Application Number	10/052,671
Filing Date	January 17, 2002
First Named Inventor	Amr M. MOHSEN
Art Unit	2128
Examiner Name	Hugh M. Jones
Attorney Docket Number	003921.00248

<i>[Signature]</i>	Aptix's Memorandum Re Comparison of Claims of '638 and '069 Aptix Patents, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 316)	
<i>[Signature]</i>	Final Ruling After Claim Construction Hearing, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 352)	
<i>[Signature]</i>	Quickturn's Closing Brief for Evidentiary Hearing, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 456)	
<i>[Signature]</i>	Plaintiff Aptix Corporation's Post-Hearing Brief, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 457)	
<i>[Signature]</i>	Meta and Mentor Graphics' Post-Evidentiary Hearing Brief, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 459)	
<i>[Signature]</i>	Notice of Motion and Motion for Summary Judgment that U.S. Patent 5,544,069 is Invalid for Failure to Comply with 35 U.S.C. §112, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 475)	
<i>[Signature]</i>	Declaration of Jeffrey A. Miller in Support of Quickturn's Motion for Summary Judgment that U.S. Patent 5,544,069 is Invalid for Failure to Comply with 35 U.S.C. §112, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 478)	
<i>[Signature]</i>	Plaintiffs' Notice of Motion and Motion for Summary Judgment on Quickturn's (1) Inequitable Conduct Defense; (2) Inequitable Conduct Counterclaim; and (3) Derivation Defense; Points and Authorities in Support, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 480)	
<i>[Signature]</i>	Quickturn's Petition to File its Motion Re: Derivation and Memo in Support Thereof One Day Late, in <i>Aptix Corp. v. Quickturn Design Systems</i> (Docket # 485)	
<i>[Signature]</i>	[Proposed] Order Granting Quickturn's Motion for Summary Judgment of Invalidity of Mohsen U.S. patent No. 5,544,069 Under 35 U.S.C. §102(f), in <i>Aptix Corp. v. Quickturn Design Systems</i>	

Examiner
Signature

[Signature]

Date
Considered

9/27/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Amr M. MOHSEN

Serial No.: 10/052,671

Publ. No.: 20020100010

Filed: January 17, 2002

For: Field Programmable Printed Circuit
Boards

Atty. Docket No.: 003921.00248

Group Art Unit: 2128

Examiner: Hugh M. Jones

Confirmation No. 6141

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

The Honorable Commissioner for Patents
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

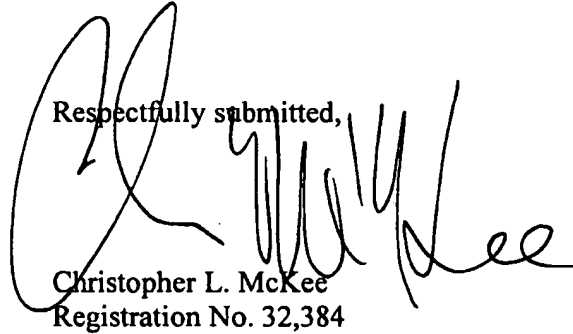
Sir:

Pursuant to 37 C.F.R. §1.56, the attention of the U.S. Patent and Trademark Office is hereby directed to the reference listed in the attached Form PTO/SB/08. This reference was cited in a European Search Report completed January 6, 2006 and issued in a corresponding European Patent Application. Pursuant to the Office's October 12, 2004 OG Notice, it is understood that 37 C.F.R. §1.98 no longer requires submission of a copy of each cited U.S. patent and published patent application, unless such copies are specifically required by the Office. Accordingly, a copy of the U.S. patents and published applications is omitted. A copy of the European Search Report is enclosed.

Assignee submits this information so that the Patent and Trademark Office may, in the first instance, determine any materiality thereof to the claimed invention. It is respectfully requested that the information be formally considered during the prosecution of this application, and that the listed references appear among the "References Cited" on any patent to issue herefrom.

Pursuant to 37 C.F.R. §1.97(e)(1), Assignee states that, on information and belief, each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Information Disclosure Statement. As mentioned above, the cited European Search Report is dated January 6, 2006. Accordingly, no fee is believed due. However, in the event that a fee is due, authorization is hereby given to charge such fee to our deposit account number 19-0733.

Respectfully submitted,

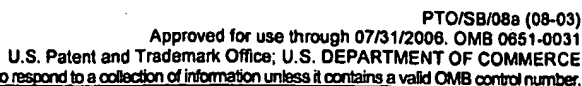
A handwritten signature in black ink, appearing to read "Christopher L. McKee", is written over the typed name and registration number.

Christopher L. McKee
Registration No. 32,384

BANNER & WITCOFF, LTD.
1001 G Street, N.W., 11th Floor
Washington, D.C. 20001-4597
(202) 824-3000

Date: April 6, 2006

C:\NrPortb\NIMAN_WDC\BSAMUELS\994409_1.DOC



(Use as many sheets as necessary)

Application Number	10/052,671
Filing Date	January 17, 2002
First Named Inventor	Amr M. MOHSEN
Art Unit	2128
Examiner Name	Hugh M. Jones
Attorney Docket Number	003921.00248

Sheet	1	of	1
-------	---	----	---

[illegible]

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ^a
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				

9/27/08

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.